SOCIETY OF American Archivists

Technical Subcommittee on Encoded Archival Standards

Introduction to EAC-CPF 2.0

2022-11-14 and 2022-11-15

All lines are muted. If you cannot hear audio once the webinar starts, please call in via phone

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Meeting ID: 82476551959

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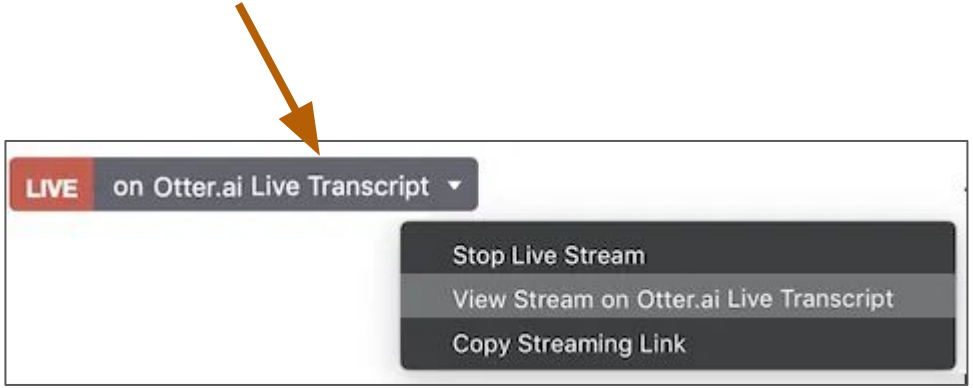
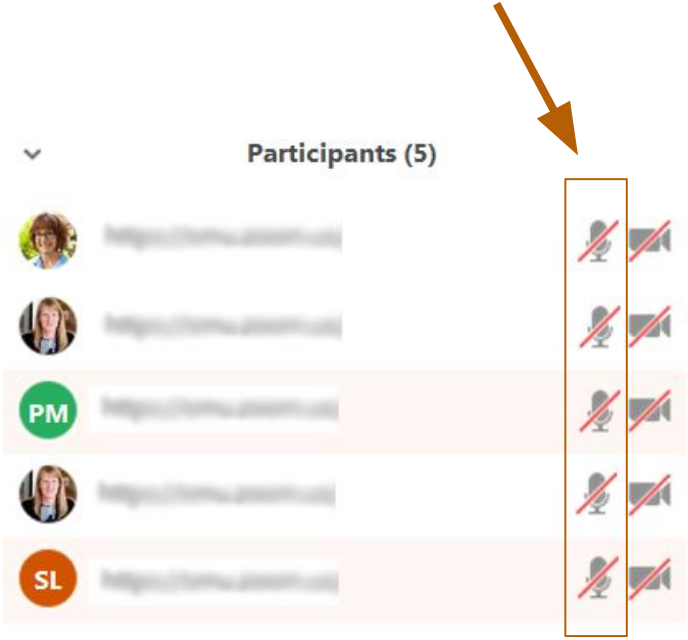
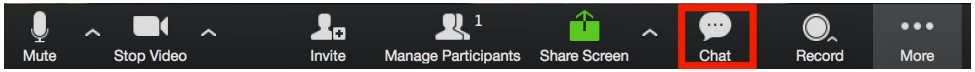
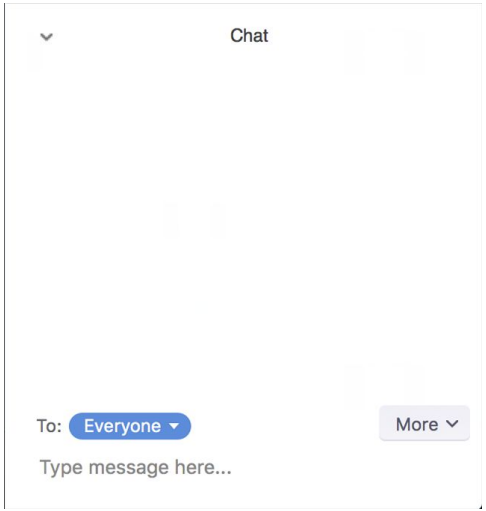


All lines are **muted**







Use **chat** for questions

Society of American Archivists
Technical Subcommittee on Encoded Archival Standards

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Presenters
Karin Bredenberg, Kommunalförbundet Sydarkivera, Sweden
Marie Elia, University at Buffalo, United States
Ailie Smith, University of Melbourne, Australia
Kerstin Arnold, Archives Portal Europe Foundation, Germany

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TS-EAS

- Technical Subcommittee on Encoded Archival Standards at the Society of American Archivists (SAA)
- Background and work covered in this presentation:
  - https://youtu.be/9NXNyx9py-I

We take care of the formats you use to manage and share archival information.

We need your comments, suggestions and bug reports.

Your input drives our work forward.

Where you can find more

TS EAS
https://www2.archivists.org/groups/technical-subcommittee-on-encoded-archival-standards-ts-eas

TS-EAS on GitHub
https://github.com/SAA-SDT

EAD publication
http://www.loc.gov/ead/index.html

EAC publication
https://eac.staatsbibliothek-berlin.de/

Our mailing list
EAD@LISTSERV.LOC.GOV

Reporting an issue via SAA
https://www2.archivists.org/standards/TS-EAS-report-an-issue

Standards revision

Annual rolling revision cycle for minor releases (see more on GitHub: https://github.com/SAA-SDT/TS-EAS-subteam-notes/blob/master/rolling-revision-cycle.md)

Evaluate standards for potential major revision every five years following guidelines by SAA's Standards Committee (see more: https://www2.archivists.org/governance/handbook/section7/groups/Standards/Development-and-Review)

Design principles

In general: newly established TS-EAS Design principles
https://github.com/SAA-SDT/TS-EAS-subteam-notes/wiki/Design-Principles

Schema Principles

1. Simplicity comes first.
2. Community needs are tied with (and tied to) the first principle.
3. The schemas exist, first and foremost, to allow the Community to validate and share archival description, which should in turn adhere to archival descriptive standards.
4. Readability matters, especially since our Community is a community of people.

Design principles

Schema Principles

5. Since our Community is an international community, the schemas support internationalization.
6. The schemas permit customizations, acknowledging that local requirements exist, without sacrificing interoperability.
7. Value lists populated from external sources will be maintained for the current version only.
8. The schemas are free to use without restrictions on their use.
9. The schemas will be revised, not in isolation, but in the context of related standards as well as changing technologies.
10. Only the current version is supported.

Presenters

Karin Bredenberg, Kommunalförbundet Sydarkivera, Sweden

Marie Elia, University at Buffalo, United States

Ailie Smith, University of Melbourne, Australia

Kerstin Arnold, Archives Portal Europe Foundation, Germany

Short introduction to: Encoded Archival Context - Corporate Bodies, Persons and Families (EAC-CPF)

Using content developed by Katherine M. Wisser (Associate Professor and Director, Archives Management Concentration, School of Library and Information Science, Simmons University), with Betts Coup, Adrian Turner & Caitlin Wells

Goal

Describe corporate bodies, persons, and families related to archival materials

Technical representation of the International Standard on Archival Authority Records (ISAAR-CPF)

A few words on XML

- Stands for e**X**tensible **M**arkup **L**anguage
- Consists of elements (<...>) and attributes (@)

```
<element attribute=”attribute value”>element value</element>
```

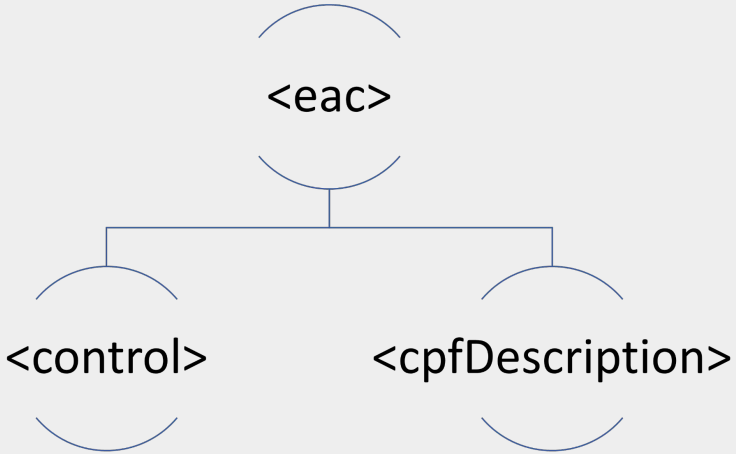
- Parents and children in a hierarchical structure

```
<parentElement>
  <childElement1>Child 1</childElement1>
  <childElement2>Child 2</childElement2>
</parentElement>
```

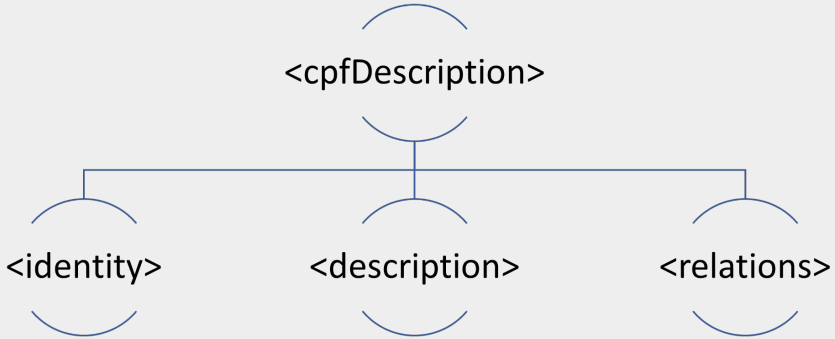
- XML schema defines how elements and attributes can/have to be used
- Data type defines what an element/attribute can contain - text, numbers, etc.
- Namespace defines the “homespace” for elements & attributes in the schema

Structure

<eac>: Root element
- <control>: Information about the XML file
- <cpfDescription>: Description of the corporate body, person, or family



<cpfDescription>



<identity>

- Required
- Contains information about the type of entity you are describing, identifiers for the entity, and name information
- May include authorized and variant names found in traditional authority records

```
<identity>
      <entityType value="person"></entityType>

      <nameEntry>
            <part localType="familyname">Hill</part>

            <part localType="givenname">Dorothy</part>

      </nameEntry>

</identity>
```

<description>

- Includes both formal descriptive elements intended to be indexable and informal descriptive elements for narrative descriptive passages
- Covers dates of existence, functions or occupations, biographical or historical notes, places, and more

```
<description>
      <places>
            <place>
                  <placeName vocabularySource="local" id="IDPlaceName1">East Side (Buffalo, N.Y.)</placeName>

                  <geographicCoordinates coordinateSystem="WGS84">N 42°53’48" W 78°50’2"</geographicCoordinates>

            </place>

      </places>

      <functions>
            <function>
                  <term valueURI="http://vocab.getty.edu/page/aat/300055433" vocabularySource="aat"
                  vocabularySourceURI="https://www.getty.edu/research/tools/vocabularies/aat/">community
                  development</term>

                  <placeName target="IDPlaceName1">East Side (Buffalo, N.Y.)</placeName>

                  <descriptiveNote>
                        <p>The organization’s mission is to create programs to improve the quality of residential
                        housing and develop projects to improve the East Side of Buffalo and Western New York.</p>

                  </descriptiveNote>

            </function>

      </functions>

</description>
```

<relations>

Establishes structured information about relationships:

- Between the entity you are describing and other corporate bodies, persons, or families
- Between the entity you are describing and descriptions of related archival resources
- Between the entity you are describing and descriptions of relevant functions

```
<relations>
      <relation>
            <targetEntity targetType="person" valueURI="https://d-nb.info/gnd/119067159X" vocabularySource="GND"
            vocabularySourceURI="https://d-nb.info/gnd/">
                  <part>Arendt, Max</part>

                  <part>1843-1913</part>

            </targetEntity>

            <relationType>family</relationType>

            <targetRole>grandfather</targetRole>

      </relation>

      <relation>
            <targetEntity targetType="person" valueURI="https://d-nb.info/gnd/1190672170" vocabularySource="GND"
            vocabularySourceURI="https://d-nb.info/gnd/">
                  <part>Arendt-Beerwald, Martha</part>

                  <part>1874-1948</part>

            </targetEntity>

            <relationType>family</relationType>

            <targetRole>mother</targetRole>

      </relation>

      <relation>
            <targetEntity targetType="person" valueURI="https://d-nb.info/gnd/1190671301" vocabularySource="GND"
            vocabularySourceURI="https://d-nb.info/gnd/">
                  <part>Arendt, Paul</part>

                  <part>1873-1913</part>

            </targetEntity>

            <relationType>family</relationType>

            <targetRole>father</targetRole>

      </relation>

</relations>
```

Why <relations>?

These relationship descriptions can leverage the linking capabilities of the internet to make direct connections and help users navigate through the complex world that archival materials represent

Creating EAC-CPF documents

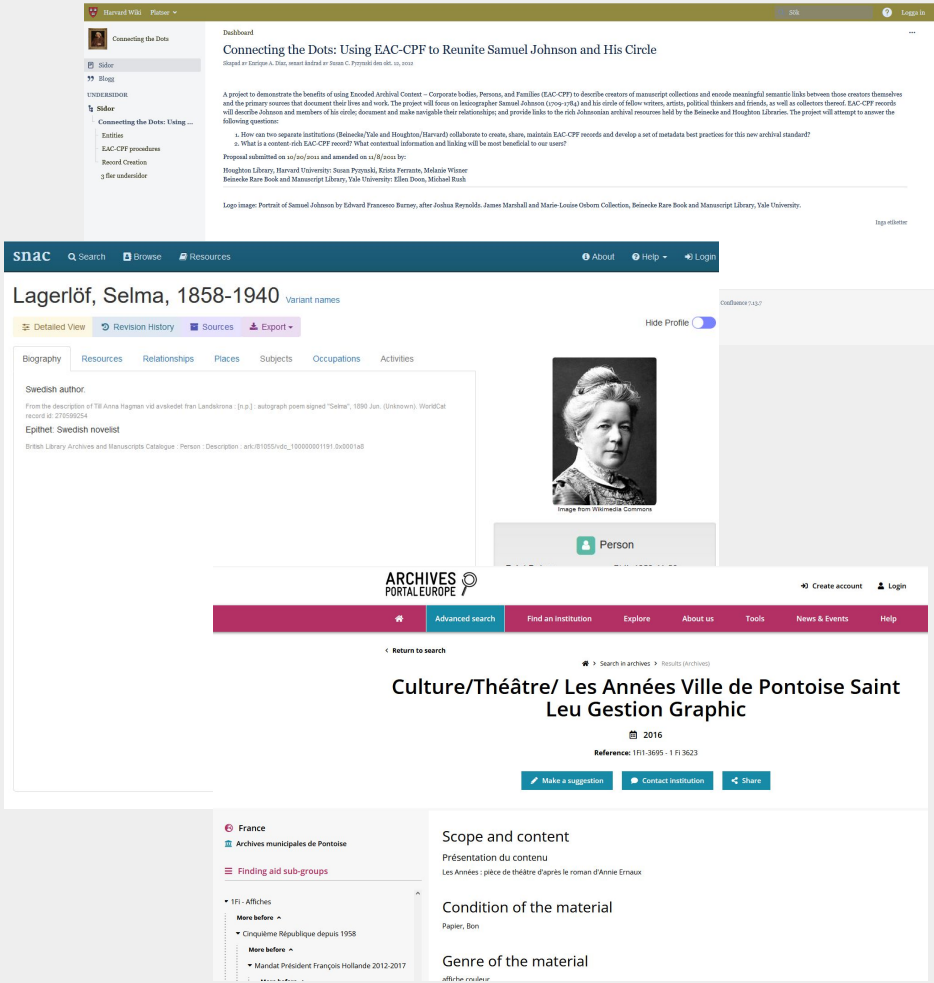
- Authored using an XML editor
- Generated through scripts from existing structured descriptions
- Generated through collection management systems designed to output EAC-CPF files

Publishing EAC-CPF documents

- Use a stylesheet to transform the XML into browser-readable HTML displays
- Collection management systems can include a public interface that allows patrons to search and retrieve
- Use a purpose-built system

EAC-CPF initiatives

- Houghton Library and Beinecke Library: Connecting the Dots: Samuel Johnson and His Circle (2012)
- Social Networks and Archival Context (SNAC)
- Archives Portal Europe



The revision

Revision steps

EAC-CPF 2010

SAA accepted 2011

[Revision begins 2017]

EAC-CPF 2010 version 2018

[Major revision begins]

EAC-CPF 2.0 draft

EAC-CPF 2.0 approved 2022

Revision steps

EAC-CPF 2010

Revision of current EAC-CPF schema started in 2017 (SAA Portland, OR)
Call for proposals on this revision, closed December 2017.

EAC-CPF 2010 version 2018

Minor enhancements and a clean-up, aligned elements and attributes definitions with EAD3 if feasible)

Beginning of major revision

EAC-CPF 2.0

Incorporated 8 years contained of feedback from user community.

EAC-CPF 2.0 approved 2022

Revision targets

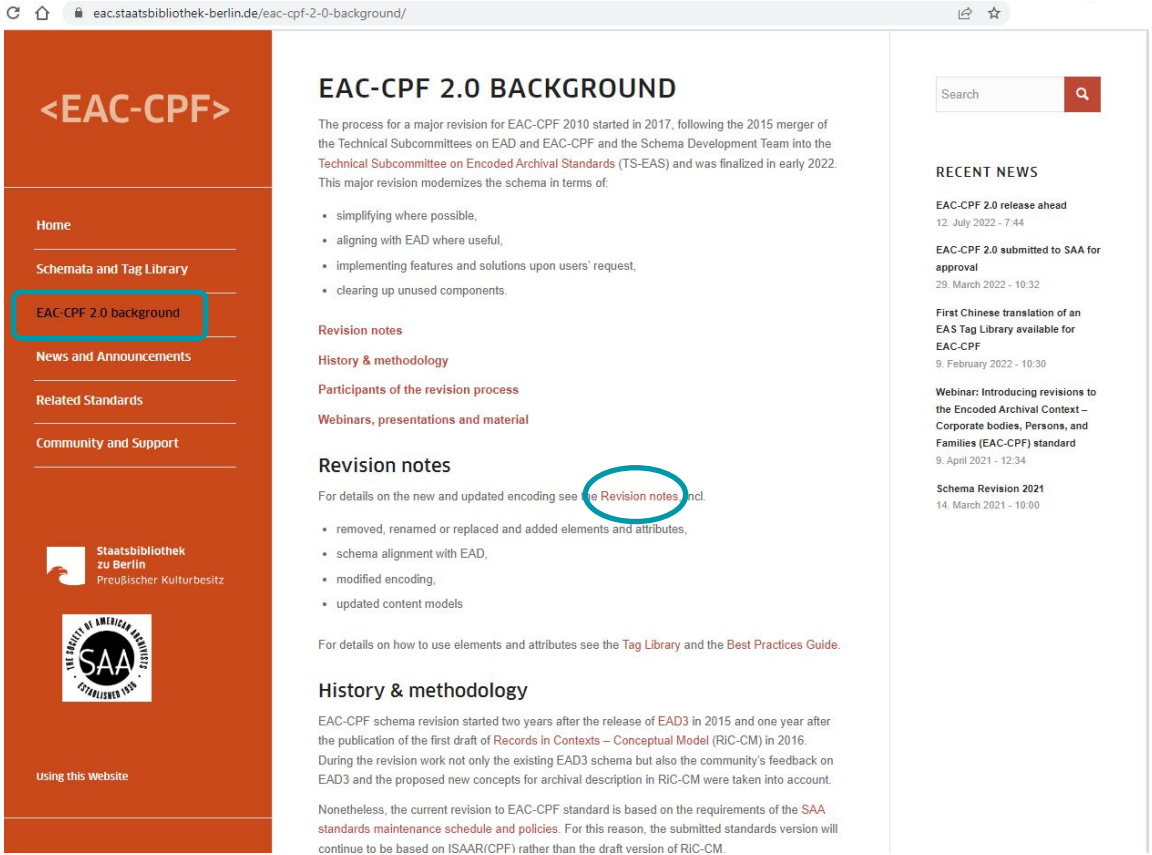
simplifying where possible,

aligning with EAD where useful,

implementing **features and solutions** upon users' request,

clearing up unused components

eac.staatsbibliothek-berlin.de



Simplified schema and alignment with EAD

Alignment objectives

- Address overlap of standards and user communities
- Easier to maintain
- Easier to teach, learn, and use
- What has the same name and scope should be defined and used in the same way

Renamed elements

- Renamed as part of alignment
  - <abbreviation> to <shortCode>
  - <citation> to <reference>
  - <placeEntry> to <placeName>
  - <script> to <writingSystem>
- Renamed to be more precise
  - <eac-cpf> to <eac>
  - <nameEntryParallel> to <nameEntrySet>
  - <entityId> to <identityId>

Replaced and removed elements

Replaced

<sourceEntry> by <reference>
<agentType> by <agent @agentType>
<alternativeForm> by <nameEntry @status="alternative">
<authorizedForm> by <nameEntry @status="authorized">
<cpfRelation> by <targetEntity @targetType="person" or "family" or "corporateBody" or"agent">
<eventType> by <maintenanceEvent @maintenanceEventType>
<functionRelation> by <targetEntity @targetType="function">
<maintenanceStatus> by <control @maintenanceStatus>
<preferredForm> by <nameEntry @preferredForm>
<publicationStatus> by <control @publicationStatus>
<relationEntry> by <targetEntity>
<resourceRelation> by <targetEntity @targetType="resource">

Removed

<outline> with <level>
<objectBinWrap>

Simplified schema: Bundled elements

Following the community feedback from 2012 to harmonize the role and function of singular and plural elements, EAC-CPF 2.0 has two concepts to bundle elements:

- Plural elements

  Wrapper elements for one or more singular elements of the same kind. Examples include <functions>, <legalStatuses>, and <mandates>.

- Element sets

  Element sets bundle elements with different concepts/information.

  Examples include <dateSet> and <chronItemSet>.

Simplified schema: Sequence of elements

Elements are ordered within their parent elements as follows

- required, not repeatable elements
- required, repeatable elements
- optional, not repeatable elements
- optional repeatable elements

Simplified schema:
Relaxed data type & elements definition

<recordId>
relaxed from NMTOKEN to text (must have at least one non-whitespace character)

<agencyCode>
relaxed the constraint to ISO 15511 to text

@countryCode, @languageCode, @scriptCode
relaxed the constraint to ISO standards (ISO 3166-1, ISO 639-2, ISO 15924) to NMTOKEN

@localType
data type relaxed from anyURI to token

@vocabularySource
data type relaxed from NMTOKEN to token

EAD Alignment: Control

New attributes

New attributes in <control>:

@countryEncoding,

@dateEncoding,

@languageEncoding,

@repositoryEncoding,

@scriptEncoding

EAD Alignment: New elements

<representation>
optional child element of <control>

<geographicCoordinates>
optional child element of <place>

<chronItemSet>
optional child element of <chronItem> to bind several events and places to a date

EAD Alignment: External namespaces

Attributes of XML namespace replaced

- @xml:id by @id
- @xml:base by @base
- @xml:lang by @languageOfElement

Attributes of XLink namespace replaced

- @xlink:href by @href
- @xlink:role by @linkRole
- @xlink:title by @linkTitle

Other XLink attributes removed

- @xlink:actuate
- @xlink:arcrole
- @xlink:show

Global attributes

Optional for all elements

- @id
- @target
- @audience (borrowed from EAD)

Optional for all elements with content

- @languageOfElement
- @scriptOfElement

Control

Transformed elements

element → attribute

Elements to encode status information:

<maintenanceStatus> →
@maintenanceStatus

required with limited values*:
cancelled, deleted, deletedMerged, deletedReplaced, deletedSplit, derived, new, revised

<publicationStatus> →
@publicationStatus

optional with limited values*:
approved, inProcess, published

**currently under discussion*

Transformed elements

element → attribute

Elements with type information:

<eventType> → **@maintenanceEventType**
in <maintenanceEvent>

required with limited values*:
cancelled, created, deleted, derived, revised, unknown, updated

<agentType> → **@agentType**
in <agent>

required with limited values*:
human, machine, unknown

**currently under discussion*

Emphasized elements

<conventionDeclaration @id> +

@conventionDeclarationReference

<source @id> +

@sourceReference

<maintenanceEvent @id> +

@maintenanceEventRefercence

<localTypeDeclaration @id> +

@localTypeDeclarationReference

Emphasized elements

<conventionDeclaration @id> +

@conventionDeclarationReference

optional attribute available in all elements in identity area (except <entityType>), in description area and in relations

can be used to link to a convention or rule that prescribes a method for transliteration

<conventionDeclaration> in control will be used to provide rules for transliteration and rules for authorized, alternative, and preferred forms of names

```
<nameEntrySet languageOfElement="fre">
      <nameEntry conventionDeclarationReference="cd1"
preferredForm="true">
            <part>Provence-Alpes-Côte d'Azur</part>
      </nameEntry>
      <nameEntry conventionDeclarationReference="cd2">
            <part>Région Sud Provence-Alpes-Côte
d'Azur</part>
      </nameEntry>
      <nameEntry conventionDeclarationReference="cd3">
            <part>Provence-Alpes-Côte-d'Azur</part>
      </nameEntry>
</nameEntrySet>
```

Emphasized elements

<source @id> +

@sourceReference

<maintenanceEvent @id> +

@maintenanceEventRefercence

allow for linking to a specific source and maintenance event (i.e., to <source @id> or <maintenanceEvent @id> in the current EAC-CPF instance)

```
<relation sourceReference="source1"
maintenanceEventReference="me2">
     <targetEntity targetType="corporateBody"
     valueURI="https://snaccooperative.org/ark:/99166/w63z1x3
     9" vocabularySourceURI="https://snaccooperative.org">
       <part>Princeton University</part>
       </targetEntity>
     <relationType
     valueURI="https://www.wikidata.org/wiki/Property:P69"
     vocabularySourceURI="https://www.wikidata.org/">educated
     at</relationType>
</relation>
```

Emphasized elements

<localTypeDeclaration @id> +

@localTypeDeclarationReference

new / optional accompanies each attribute @localType and allows linking to specific local type declaration (i.e., to <localTypeDeclaration @id>

```
<nameEntry status="authorized">
<part
      localType="https://d-nb.info/standards/elementset/gnd#personalName"
      localTypeDeclarationReference="GNDO">Arendt, Hannah</part>
      <part
      localType="https://d-nb.info/standards/elementset/gnd#dateOfBirthAndDeath"
      localTypeDeclarationReference="GNDO">1906-1975</part>
</nameEntry>
```

Example <control>: Use Case

“I want to start a new EAC record for my working group and document when I did it”

Unique ID for record	TS-EAS_EAC-CPF_2.0
Agency	TS-EAS
Date (and Time) record was created	Your Name, August 3, 2022

Example <control>

```
<control maintenanceStatus="new" publicationStatus="inProcess">
        <recordId>TS-EAS_EAC-CPF_2.0</recordId>
        <maintenanceAgency>
            <agencyName>TS-EAS</agencyName>
        </maintenanceAgency>
        <maintenanceHistory>
            <maintenanceEvent maintenanceEventType="created">
                <agent agentType="human">agent name</agent>
                <eventDateTime standardDateTime="2022-08-03"/>
            </maintenanceEvent>
        </maintenanceHistory>
    </control>
```

“The draft is public, but in process”

```
audience="external"
publicationStatus="inProcess"
```

“And I’m going to use some data standards that I should note in the record”

```
countryEncoding="iso3166-1"
dateEncoding="iso8601"
languageEncoding="iso639-1"
repositoryEncoding="iso15511"
scriptEncoding="iso15924"
```

Example <control>

```
<control audience="external" countryEncoding="iso3166-1"
  dateEncoding="iso8601" languageEncoding="iso639-1"
  maintenanceStatus="new" publicationStatus="inProcess"
  repositoryEncoding="iso15511" scriptEncoding="iso15924">
```

Example <maintenanceEvent>: Use Case

“I want to make an internal note in the record about what I did and why”

My name	TS-EAS EAC-CPF team
Date (and Time) record was created	April 27, 2021 at 8:01am
Description of my work on this record	Example for webinar

Example <maintenanceEvent>

```
<maintenanceEvent maintenanceEventType="created">
  <agent agentType="human">TS-EAS EAC-CPF team</agent>
  <eventDateTime standardDateTime="2021-04-027T08:01:48">
    27.04.2021</eventDateTime>
  <eventDescription>example for webinar</eventDescription>
</maintenanceEvent>
```

Linking and referencing

External referencing

Referencing external vocabularies, ontologies, etc.

- @valueURI
- @vocabularySource
- @vocabularySourceURI

Referencing sources

- <source> with <reference>
- With an optional @href

Referencing external resources for context

- <reference> with other elements
- With an optional @href

Example (snippets)

```
<source>
  <reference href="https://catalog.archives.gov/search?q=*:*&f.oldScope=descriptions
  &f.level=series&f.locationIds=5302310">Barack Obama Presidential Library</reference>
</source>

<nameEntry valueURI="Q76" vocabularySourceURI="https://www.wikidata.org/wiki/">
  <part localType="lastname">Obama</part>
  <part localType="firstname">Barack</part>
</nameEntry>

<relation>
  <targetEntity targetType="corporateBody">
    <part>Democratic Party</part>
  </targetEntity>
  <descriptiveNote>
    <p>
      <reference href="https://en.wikipedia.org/wiki/Barack_Obama">See more</reference>
```

Internal referencing

Referencing from any element to any other element within the same EAC-CPF instance

- From @target to @id
- Option to refer to more than one element

Referencing from descriptive elements to specific elements in <control>

- For assertion description
- Option to refer to more than one element

Example (snippets)

```
<occupation>
  <term>Assistant examiner - level III</term>
  <placeName target="#place1">Bern</placeName>
</occupation>
<place id="place1">
  <placeName>Bern</placeName>
  <placeRole>Place of work</placeRole>
  <address>
    <addressLine addressLineType="street">Stauffacherstrasse 65/59g
    </addressLine>
    <addressLine addressLineType="postalCode">3003</addressLine>
    <addressLine addressLineType="country">Switzerland</addressLine>
  </address>
</place>
```

Assertion description

Evidence-based assertions

Statements that form part of the EAC-CPF description

Encoding who added an assertion when, based on which source information, and following which rules

- @maintenanceEventReference
- @sourceReference
- @conventionDeclarationReference

Especially useful in case of conflicting statements

Option to refer to more than one element

Example (snippets)

```
<maintenanceEvent maintenanceEventType="updated" id="me2">
  <agent agentType="human">John Smith</agent>
  <eventDateTime standardDateTime="2021-02-23"/>
</maintenanceEvent>

<source id="source1">
  <reference>History of University of Oregon</reference>
  <citedRange unit="page">270</citedRange>
</source>

<relation sourceReference="#source1" maintenanceEventReference="#me2">
  <targetEntity targetType="corporateBody">
    <part>Princeton University</part>
  </targetEntity>
</relation>
```

Local types

References to lists of locally maintained vocabularies that are used in the @localType attribute

Referenced and described in <localTypeDeclaration>

Option to refer to more than one element

Example (snippets)

```
<localTypeDeclaration id="GNDO">
    <reference href="https://d-nb.info/standards/elementset/gnd ">
    GND Ontology</reference>
</localTypeDeclaration>
[...]
<nameEntry status="authorized">
    <part localType="https://d-nb.info/standards/elementset/gnd#personalName "
    localTypeDeclarationReference="GNDO">Arendt, Hannah</part>
</nameEntry>
```

Name encoding

Various names

<nameEntryParallel> → **<nameEntrySet>**

Transformed elements: *<element> → @attribute*

<authorizedForm> → **@status: authorized**

<alternativeForm> → **@status: alternative**

<preferredForm> → **@preferredForm: true, false**

@conventionDeclarationReference

@localType

Example (snippet)

```
<conventionDeclaration id="cd1">
    <reference>[...] AFNOR NF Z44-060 [...] </reference>
</conventionDeclaration>
[...]
<nameEntry preferredForm="true" status="authorized"
conventionDeclarationReference="#cd1">
    <part>Institut international des droits de l'homme</part>
</nameEntry>
```

Example (snippet)

```
<nameEntrySet localType="parallel">
    <nameEntry languageOfElement="de" preferredForm="true"
    status="authorized" localType="native">
        <part localType="surname">Arendt</part>
        <part localType="firstname">Hannah</part>
    </nameEntry>
    <nameEntry languageOfElement="ja" scriptOfElement="Jpan"
    preferredForm="false" status="authorized"
    localType="translation">
        <part localType="surname">アーレント</part>
        <part localType="firstname">ハナ</part>
    </nameEntry> [...]
</nameEntrySet>
```

Place encoding

Places vs names of places

Encoding places in full

- Within plural element <places>, in <relation>-s, & in the context of a <chronList>

Encoding <placeName>-s only

- Renamed <placeEntry> to <placeName>
- In singular elements

Places and their context

<place> requires at least one of

- Name of place (highly recommended)
- Role of place
- Physical address
- Digital contact information (new)
- Geographic coordinates (adopted from and aligned with EAD)

<place> allows for

- Date information
- Informal description

Example (snippet)

```
<place>
  <placeName countryCode="JP">Tokyo Imperial Palace</placeName>
  <placeRole>Place of birth</placeRole>
  <geographicCoordinates coordinateSystem="WGS84">N 35°40'57",
  E 139°45'07"</geographicCoordinates>
  <address>
    <addressLine addressLineType="street">1-1 Chiyoda</addressLine>
    <addressLine addressLineType="postalCode">100-8111</addressLine>
    <addressLine addressLineType="municipality">Tokyo</addressLine>
  </address>
  <contact>
    <contactLine
    contactLineType="homepage" href="https://sankan.kunaicho.go.jp/ ">
    Visit our website</contactLine>
  </contact>
</place>
```

Date encoding

Uncertain, approximate and ongoing dates

Statement of uncertainty

- @certainty adopted from EAD (along with @calendar and @era)

Normalised uncertainty

- Enabling Extended Date/Time Format as integrated in ISO 8601-2:2019

A date’s status

- New attribute @status allows indication of "unknown" or "ongoing" dates

Example (snippets)

```
<date certainty="circa">1789</date>

<dateRange>
  <fromDate status="unknown"/>
  <toDate standardDate="0210?">c. 210</toDate>
</dateRange>

<dateSet>
  <date standardDate="2014-07">July 2014</date>
  <dateRange>
    <fromDate standardDate="2016-09">September 2016</fromDate>
    <toDate status="ongoing"/>
  </dateRange>
</dateSet>
```

Relations

New encoding

<relations>

<functionRelation>
<resourceRelation>
<cpfRelation>
 <relation> (new) **+**

<targetEntity> (new) with **@targetType** (new)

<cpfRelation>

<targetEntity @targetType="person“>

or "family" or "corporateBody" or "agent"

<functionRelation>

<targetEntity @targetType="function">

<resourceRelation>

<targetEntity @targetType="resource">

New encoding

<relations>

<relationType> (new)

specifies the type of relation that the entity being described has to the targeted entity.

<targetRole> (new)

can be used to provide information about the role of the targeted entity toward the entity described

<date>, <dateRange>, <dateSet>, <place> <descriptiveNote>, & <objectXMLWrap> provide further context

Example

```
<relations>
  <relation>
    <targetEntity vocabularySource="GND"
    vocabularySourceURI="http://d-nb.info/gnd/"
    valueURI="http://d-nb.info/gnd/1190671301" targetType="person">
      <part localType="family">Arendt</part>
      <part localType="given">Paul</part>
    </targetEntity>
    <relationType>Family</relationType>
    <targetRole>parent</targetRole>
  </relation>
  [...]
</relations>
```

Documentation

Website
https://eac.staatsbibliothek-berlin.de/

Tag Library
https://eac.staatsbibliothek-berlin.de/schemata-and-tag-library/

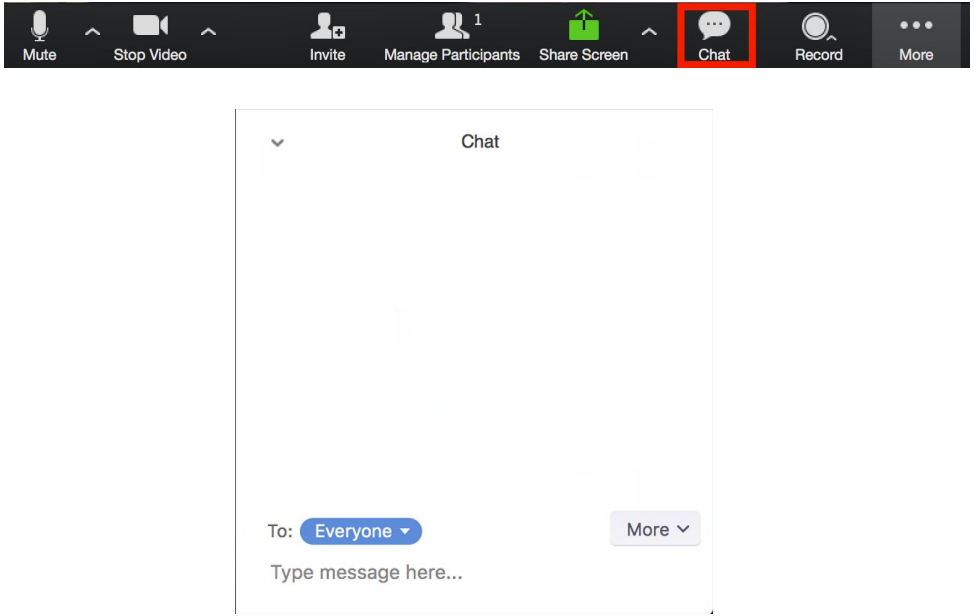
NEW: **Best Practice Guide**
https://saa-sdt.github.io/EAS-Best-Practices/
[Video tour available on SAA YouTube Channel: https://www.youtube.com/watch?v=sHTDByPJ-Mk]

Maintenance and review to follow general review cycle of SAA Standards Committee and agreed minor revision cycle of the TS-EAS regarding the EAS Design principles.

WANTED

Examples & Use cases

Q & A



Use **chat** for questions

Thanks!

The recording will be available on YouTube:

https://www.youtube.com/user/saastaff